tion and acute respiratory distress syndrome in 1 case. All patients except one post-operative infarction case were discharged on foot, and their mean hospital stay after operation was 12 days. No operative death was seen and the overall 90-day postoperative mortality rate was zero. Although the mean follow up period was 23 months, the overall survival rate was 67%, so far.

Conclusions: Postoperative complication rate after pulmonary artery reconstruction was relatively high, but most of the complications were controllable. Lobectomy assosicated with pulmonary artery reconstruction procedure for lung cancer treatment is useful and feasible, with good intermediate term results.

P3-275 **NSCLC: Surgery Posters, Wed, Sept 5 – Thur, Sept 6**

Systemic bilateral mediastinal dissection for c-N2 non small cell lung cancer

Yokota, Toshiya; Hata, Enjo; Ikeda, Shingo

Mitsui Memorial Hospital, Chiyoda, Japan

Background: According to the study of regional lymphtic drainage, we considered reasonable lymphadenectomy contributes the post-operative survival of the patient with Non Small Cell Lung Cancer (NSCLC). And we had devised Systemic Bilateral Mediastinal Dissection and lung resection through a median sternotomy (ND3 operation) for patient with NSCLC.

Material and Method: The patients with NSCLC who are estimated to be able to conventional radical operation and aged 75 year-old or less becomes the adaptation of ND3 operation. From Jan.1988 through Dec. 2005, 264 patients of the left lung primary underwent ND3 operation and we reviewed 61 cases with c-N2 left primary NSCLC(excluding the patients with M1 disease).

Results: Overall 5-year survival rate in the 264 patients of left lung primary was 56.3%. Operative mortality in 264 patients was 4.0%, and in 112 patients who underwent ND3 operation from Jan.2000 through Dec.2005 was 1.8% .

In these c-N2(n=61) patients, over all five-year survival was 48.9%, and according to post-operative pathological stages were 100% in 4 pts of p-stage IA, 68.6% in7 pts p-stagIB, 51.4% in 8 pts p-stage IIB,46.0% in 23 pts p-stageIIIA and 38.5% in 21 pts p-stageIIIB.

Conclusion: Our result suggested that the post-operative survival of patients with c-N2 NSCLC of the left lung primary would be remarkably improved by Systemic Bilateral Mediastinal Dissection.

P3-276 **NSCLC: Surgery Posters, Wed, Sept 5 – Thur, Sept 6**

Limited resection trial for pulmonary ground-glass opacity nodules: case selection based on high resolution computed tomography

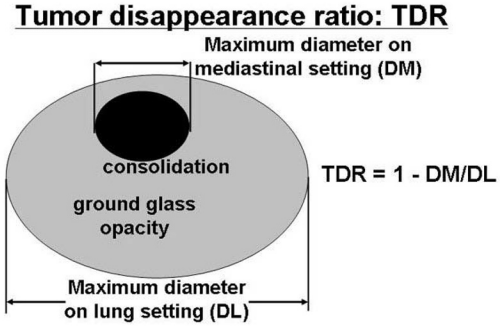
Yoshida, Junji[1] Ishii, Genichiro[1] Nagai, Kanji[1] Nishimura, Mitsuyo[1] Ito, Hiroyuki[2] Kameda, Yoichi[2] Nakayama, Haruhiko[2] Yamada, Kouzou[2] Nishiwaki, Yutaka[1]

[1] National Cancer Center Hospital East, Kashiwa, Japan [2] Kanagawa Cancer Center, Yokohama, Japan

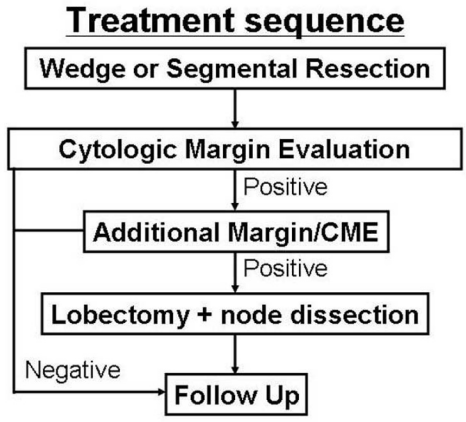
Background: Japanese researchers have reported good correlation between radiologic and pathologic findings in early lung adenocarcinomas. For negative margin confirmation, we found a technique using lavage and cytological examination.

Objectives: Confirm limited resection efficacy as radical surgery in patients with high resolution CT indicated minimally invasive lung cancer. Confirm intraoperative cytology as a negative margin indicator and reliable margin non-recurrence predictor.

Methods: Enrollment requires patients with a tumor ≤2 cm in diameter, diagnosed or suspected as a clinical T1N0M0 carcinoma in the lung periphery based on a CT scan. They had to have a high-resolution CT scan indicating a sub-solid nodule with tumor disappearance ratio; TDR ≥0.5. (TDR = 1- DM/DL; DM: maximum tumor diameter on mediastinal settings, DL: maximum tumor diameter on lung settings). Patients with a malignancy history within the past 5 years or those unfit for lobectomy and systematic lymph node dissection are excluded.



We perform a wedge or segmental resection. The used stapling cartridges are washed with 50 ml saline. Washing saline is centrifuged and sediment stained using Papanicolaou's method and examined for cancer cells. If cytology is cancer positive, additional margin is resected, and cytologic examination repeated. If the second exam is positive, a routine lobectomy and systematic lymph node dissection will be performed.



Patients are followed up every 6 months by chest CT for the first 3 years, and annually thereafter for at least 5 years. The endpoint is 5 year local recurrence free survival rate.

The Kanagawa Cancer Center joined the study in November 2006.

Results: This prospective study started in November 2003, and 35 patients have been enrolled as of February 2007. This is 5.1% of all resected lung cancer patients during this period. There were 12 men and 23 women, aged 30-78, with an average 61 years. Tumor sizes ranged from 6 to 20 mm in the resected specimens, averaging 12 mm. There were 6 Noguchi type A tumors, 16 type B tumors, 9 type C tumors, one unclassifiable adenocarcinoma, and 3 inflammatory fibroses. All

cancers showed no vessel invasion or positive cytology results. There was no correlation between tumor size, TDR, and subtype. No mortality or recurrence has occurred, but one patient developed postoperative pneumothorax.

P3-277 **NSCLC: Surgery Posters, Wed, Sept 5 – Thur, Sept 6**

Induction chemoradiotherapy for pancoast tumors with N2 disease

Zengerink, Hans[1] Mollema, Robert[2] Oosterhuis, Wolter[2] Paul, Rick[2]

[1] VU Medical Centre Amsterdam, The Hague, The Netherlands [2] VU medical Centre Amsterdam, Amsterdam, The Netherlands

Introduction: Pancoast tumors are seen as a subgroup of lungcancer that behave differently from most other non small cell lungcancers. These tumors tend to behave more aggressively locally and metastasize more rapidly. Therefore their treatment should also be more aggressive.

Our center's experience with Pancoast tumors will be discussed and compared with current literature to asses the effects of induction chemoradiotherapy on the outcome. Based on these results a proposal for treatment will be advocated.

Methods: We retrospectively analyzed the records of all patients with Pancoast tumors treated with a multimodality approach at our institution from july 2001 through January 2007 and compared them with recent literature.

Results: Twenty-six patients were in the study cohort. Because two patients failed to receive both chemotherapy and radiotherapy, we eventually included 24 patients (7 women, 17 men). The mean age was 60 years (range, 40-78 years)

There were 18 patients with T3 tumors. 7 patients were proven N2 positive after a positive PET scan and following mediastinoscopy. The chemotherapy regimens consisted of gemcitabine+carboplatin or etoposide+carboplatin. Chemotherapy was concurrently or sequentially given with external beam radiotherapy delivered in daily fractions for a total dose of 46 Gy in most patients. 7 patients with N2 disease underwent re-mediastinoscopy after completed induction therapy, with all proven negative N2 lymph nodes.

Postoperative complications occurred in 8 patients (36 without any postoperative mortality. Although in 8 patients (36%) there was still viable tumor in the pathologic specimen, we achieved complete resection in all patients but 1. There were no positive N2 nodes in the definitive pathologic specimen. In 2 patients with N2 positive nodes before induction therapy, there were postoperative positive N1 nodes in the specimen. Mean length of follow-up was 19 months (2-58). 6 patients died, 2 patients because of locoregional recurrence, 3 patients due to metastasis and 1 patient died of cardial cause. 4/12 patients with a follow-up of more than two years died as a result of recurrent malignancy.

Conclusions: Preoperative Chemo-Radiotherapy results in a high percentage of radical resections. Postoperative complications are more frequent. The subgroup of patients with a >2 year follow up show high survival rates of 66% especially when compared to patients in literature that have been treated with surgery alone. The overall results are comparable to results reported in literature. Tumor positive mediastinal lymph nodes before treatment should not necessarily exclude patients from trimodality treatment. The improved survival rates compared to surgery alone make this treatment the treatment of choice.

Therefore we advocate that in this group of patients early multidisciplinary staging and organization of treatment is mandatory.

P3-278 **NSCLC: Surgery Posters, Wed, Sept 5 – Thur, Sept 6**

Effect of neoajuvant chemotherapy in surgery and around surgery of patients

Zhang, Yi

Beijing Lung Cancer Centre CMU, Beijing, China

Background: The aim of this study was to assess feasibility and efficacy of neoajuvant chemotherapy with NVB and carboplatin followed surgery for patients with stage III NSCLC.

Methods: We report 27 consecutive patients with all staged III NSCLC receiving neoadjuvant therapy. mean age was 62.1 years. Cell type was squamous 17 cases, adenocarcinoma 7 cases, adenosquamous 3 cases. Operations included pneumonectomy(10), pneumonectomy plus carino-resection(1), bilobectomy(2), lobectomy(10), lobectomy plus lung artery plastics(1), exploration(3). Chemotherapy was NP or NC for 1-2 cycle before surgery. All patients were gived 4-6 cycles chemotherapy after operation.

Results: In this group, CR 1, PR 12, SD 13, PD 1.The rate of resection was 88.9%. 3 cases of exploration due to tumor invasive heart, cava venous. No surgical complication and mortality rate. Bleeding during operation was 150-4500ml.

Conclusion: Destination of neoajuvant chemotherapy is down-stage, improving complete resection rate, killing micro-tumor of body, avoiding relapse and distant metastasis, prolong survival and improving life quality of patients. Therefore, from our group and foreign papers, neoajuvant chemotherapy is safe, effective, not increasing surgical mortality and complication after operation.

P3-279 **NSCLC: Surgery Posters, Wed, Sept 5 – Thur, Sept 6**

Atrial resection in advanced lung cancer

Zharkov, Vladimir V.; Kurchin, Viachaslau P.; Podobed, Alexander V.

Research Institute of Oncology & Medical Radiology, Minsk, Belarus

Purpose: To assess the results of the surgical treatment of patients with non-small cell lung cancer (NSCLC) invading the pulmonary vessels or atrium.

Methods: From November 1986 to December 2006, 49 patients underwent ñombined pneumonectomy with partial resection of the left atrium for lung cancer, without (n=41) and with cardiopulmonary bypass and reconstruction bovine pericardium graft (n=8).

Results: Of the 49 patients (median age of 58,6 years, range 41 to 75 years), 47 were men (96%) and 2 were women. Pathologic analysis of the specimens identified 26 patients (53%) with N2 disease, 22 patients (45%) with N1 disease, and 1 patient with N0 disease. The T status was pT4 in 35 patients, pT3 in 14 patients. The myocard in border of resection was detected by microscopy. Histology was squamous cell carcinoma in 37 patients, adenocarcinoma in 4, large cell carcinoma in 2, mucoepidermoid carcinoma in 1 and adenoid cystic carcinoma in 1. 8 patients received a preoperative chemotherapy (n = 2) or radiotherapy (n = 6). 31 patients (63,2%) underwent right pneumonectomy. Only left atrium was resected in 34 patients, two organs in 10 patients, and three organs in 5 patient. The superior vena cava was resected in 2 patients, muscular coat of esophagus in 3, the adventitia of the aorta in 3, the trachea in 9, diaphragma in 1 and the pulmonary artery in 2. The operative mortality rate was 6,6% (n = 3). Non-fatal major complications occurred in 6 patients (12,2%). The survival rate, calculated with the Kaplan-Meier method, was estimated as 61% at 1 year, 36 % at 3 years and 24% at 5 years (median 15 months), including the operative